



9. (Original) The gel matrix of claim 8, wherein the COINS further comprise an organic layer overlying the metal layer, which organic layer comprises the probe.

10. (Original) The gel matrix of claim 1, wherein the probe is selected from antibodies, antigens, polynucleotides, oligonucleotides, receptors and ligands.

11. (Original) The gel matrix of claim 10, wherein the probe comprises a polynucleotide.

12. (Previously presented) The gel matrix of claim 1, wherein any of the nanoparticles may further comprise a fluorescent label that contributes to the optical signature.

13-32. (Canceled)

33. (Currently amended) A system for detecting an analyte in a sample comprising a gel matrix comprising a hydrated gel comprising pores having a size to sieve molecules of a desired size range by electrophoresis or magnetophoresis and one or more SERS-enhancing nanoparticles stationary within the gel, the SERS-enhancing nanoparticles within the gel having an attached probe that binds specifically to an analyte; a sample containing at least one analyte; and an optical detection system suitable for detecting SERS signals from the nanoparticles.

34. (Original) The system of claim 33, further comprising a computer comprising an algorithm for analysis of the SERS signals obtained from the sample.

35-93. (Canceled)

94. (Previously Presented) The gel matrix of claim 1, wherein the SERS-enhancing nanoparticles within the gel have an attached probe that binds specifically to an analyte.